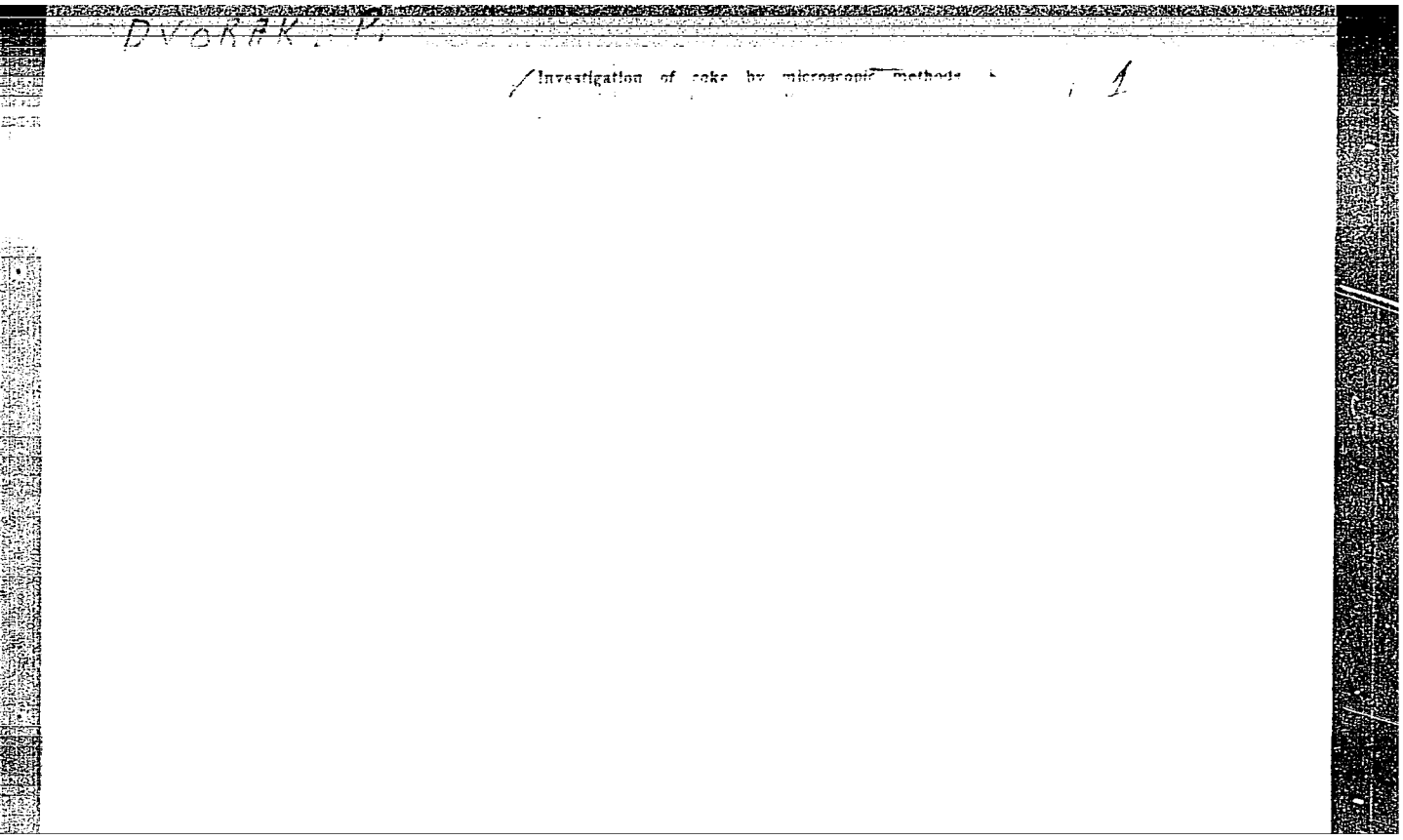


26849

Z/038/61/000/004/004/005
D238/D305

21.6000 also 2406, 2606

AUTHOR: Dvořák, Pavel

TITLE: A scintillation dosimeter of fast and slow neutrons

PERIODICAL: Jaderná energie, no. 4, 1961, 130 - 131

TEXT: This is an abstract from author's diploma thesis (Ref 1: P. Dvořák, Scintilační dozimetr pro rychlé a pomalé neutrony (Scintillation dosimeter for fast and slow neutrons), Diplomová práce FTJF, ČVUT, Prague, 1960) describing such a dosimeter designed by author. For determining the dose per neutron the author used data proposed by A.M. Kogan, G.G. Petrov et al., (Ref 2,3,4: At. en. 7, 1959, 351,385,386) and by G.S. Hurst (Ref 5: Brit. J. Radiol. 27, 1954, 353). The values of the radiobiological equivalent were taken from Czechoslovak standard ČSN 1730. A bloc-schematic diagram of the dosimeter is shown in Fig.1. The instrument consists of a probe, recording equipment and a high-voltage power supply. Except for the photomultiplier RCA 6655, which is a US product, all parts of the instrument are of Czechoslovak production. The instrument uses a ZnS(Ag) + paraffin scintillator for neutrons, and a ZnS(Ag) + B_2O_3 scintillator for slow neutrons. The probe con-

Card 1/4

A scintillation dosimeter ...

sists of a RCA 6655 photomultiplier, a scintillator, a voltage divider and a preamplifier (with two 1F34 tubes). The recording equipment consists of an amplifier (with one 1F34 tube), a phantastron (with one 1H34 tube), the output stage (with one 1L34tube), and an integrator with a dosing capacitor (with two 3NN41tubes) and a d-c amplifying stage (with two 1L34 tubes). A microamperemeter with a range up to 100 microamperes is used as indicator. The high-voltage power supply is provided with a r-f voltage multiplier(with one 1L33 tube) and a voltage quadrupler. It has outputs up to 100 v at a total load of 2.3 megohms. The instrument has the following measuring ranges:

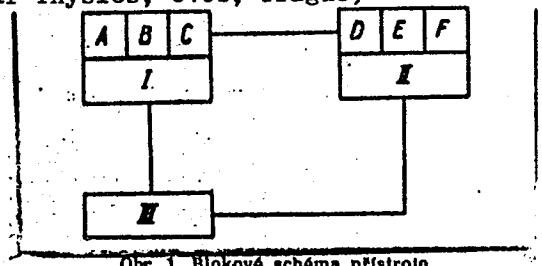
Measuring range	Neutrons from a Ra+Be source	Thermal neutrons
I	20.0 rep/hour	0.2 rep/hour
II	2.5 rep/hour	25.0 rep/hour
III	0.4 rep/hour	4.0 rep/hour
IV	80.0 rep/hour	0.8 rep/hour

At the present time , the author is building an improved version of this instrument which will have a smaller number of tubes and a sensitivity about ten times higher. The calibration will be made according to M.I. Shalnov(Ref 10: Tkanevaya doza neytronov (Tissue Neutron Dose), Atomizdyt, Moscow,

A scintillation dosimeter ...

1960). There are 3 figures and 10 references: 8 Soviet-bloc and 2 non-Soviet bloc. The references to the English-language publications read as follows: G.S. Hurst, Brit. J. Radiol. 27, 1954, 353; Price, Horton, Spinney, Radiation shielding, London, 1957, 10.

ASSOCIATION: Fakulta techniké a jaderné fyziky ČVUT, Praha (Department of Technical and Nuclear Physics, ČVUT, Prague)



Obr. 1. Blokové schéma přístroje
I — sonda; *II* — měřicí zařízení; *III* — zdroj vysokého napětí
A — fotonásobič se scintilátorem; *B* — dělič napětí; *C* — předzesilovač; *D* — zesilovač; *E* — diskriminátor s koncovým stupněm; *F* — integrační obvod se stejnosměrným zesilovačem.

Card 3/4

A scintillation dosimeter ...

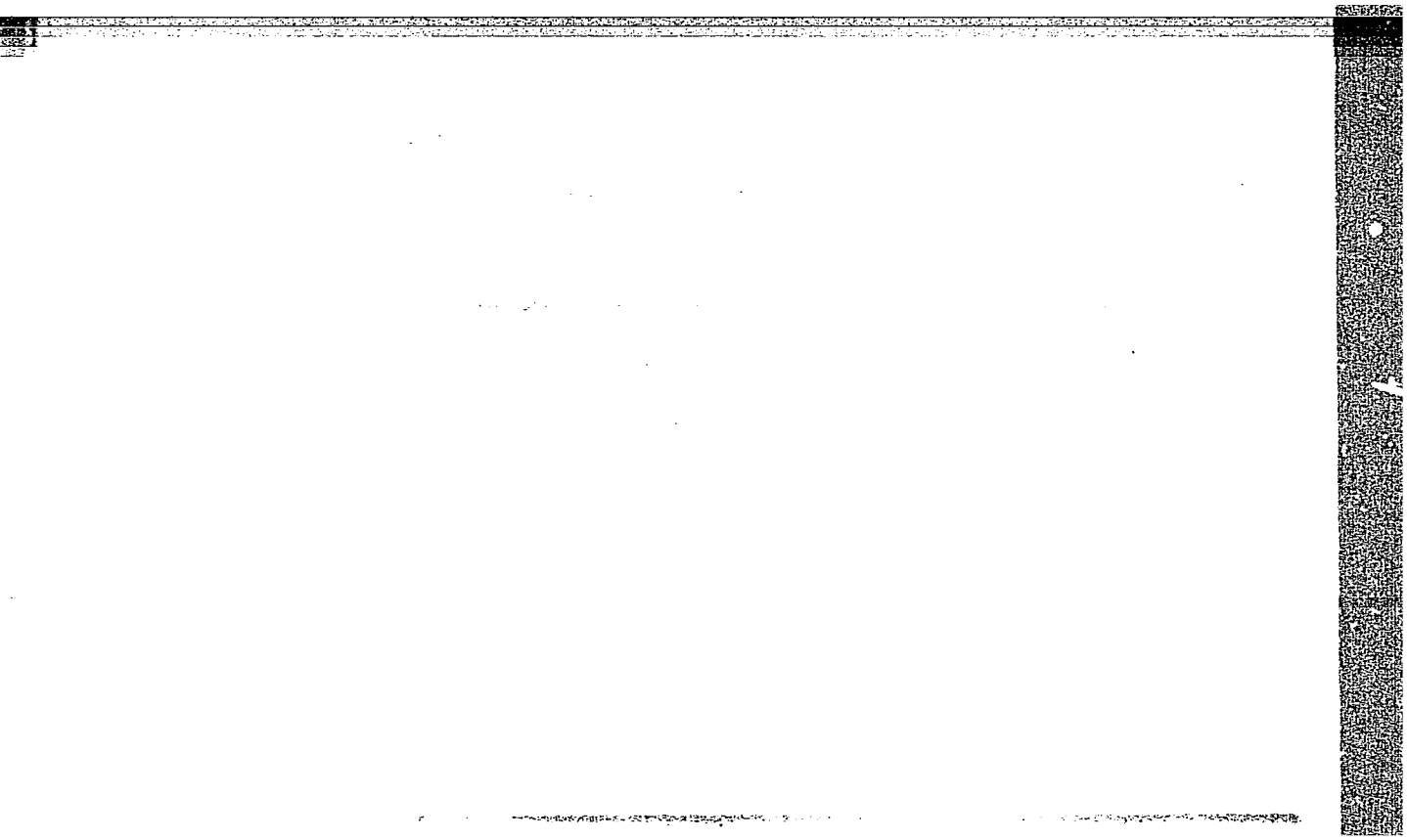
Fig. 1 : Block-schematic diagram of scintillation dosimeter of fast and slow neutrons. Legend: I-probe; II - measuring equipment; III - high-voltage power supply; A - photomultiplier with scintillator; B - voltage divider; C - preamplifier; D - amplifier; E - discriminator with output stage; F - integrating circuit with d-c amplifier.

Card 4/4

[redacted]

[redacted] fast neutron, slow neutron, dosimeter, scintillation counter, scintillator, thermal neutron, reactor

[redacted]



APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R000411630001-5"

ACC NR: AP7003758 SOURCE CODE: CZ/0009/66/000/012/0736/0738

AUTHOR: Curda, Miroslav; Majrich, Antonin; Holas, Jiri; Dvorak, Pavel

ORG: Chemical and Metallurgical Production Corporation (Spolek chemickou a hutni vyrobu); Research Institute of Chemical Engineering, Usti nad Labem (Vyzkumny ustav chemicke techniky)

TITLE: Nickel and stainless steels as structural materials for use in chlorination processes

SOURCE: Chemicky prumysl, no. 12, 1966, 736-738

TOPIC TAGS: ~~chromium~~ stainless steel, ~~chromium~~ nickel ~~stainless~~ steel, ~~stainless steel corrosion~~, chlorination, ~~medium induced corrosion, nickel molybdenum alloy~~, corrosion rate, carbon steel, structural steel, chromium steel

ABSTRACT: Carbon steel, unalloyed nickel, chromium and chromium-nickel stainless steels and Hastelloy-type alloys were tested for corrosion behavior in several chlorination media such as dry chlorine gas, and various mixtures of chlorine, hydrochloric acid, water vapors, and carbon tetrachloride at temperatures up to 550C. Carbon steel was found to have a relatively low corrosion rate, 1.7 $g/m^2 \cdot day$, in dry chlorine at 100C but a very high rate, of 2390 $g/m^2 \cdot day$, at 200C. The presence of water vapors lowered the corrosion rate at 200C to 25 $g/m^2 \cdot day$. Chromium-nickel-molybdenum steels of the 18-10-2 type had a satisfactory resistance in a gaseous

Card 1/2 UDC: 66.017:66.094.403:669.24:669.14.018.8

ACC NR: AP7003758

medium containing 80% chlorine and 20% carbon tetrachloride at temperatures up to 300C with corrosion rates not exceeding 8 g/m^2·day. As in the case of iron, the corrosion rate in the presence of water vapor dropped to 0.2—0.48 g/m^2·day. Pure nickel and a chromium-nickel molybdenum alloy of the 21-38-5.5 type had, in the same medium, a corrosion rate not exceeding 0.8 g/m^2·day, with and without water vapors. In a medium consisting of 60% water vapors, 30% hydrochloric acid, 9% carbon tetrachloride, and 1% chlorine at 500—550C, nickel and Hastelloy C-type alloys had a relatively low corrosion rate of 7 and 11—25 g/m^2·day, respectively. Orig. art. has: 8 tables.

SUB CODE: 11/ SUBM DATE: 18Jun66/ ORIG REF: 001/ OTH REF: 007

Card 2/2

DVORAK, P., dr.

A new system of indemnities for industrial accidents. Elektrotechnik 17 no.6:178-179 Je '62.

DVORAK, Petr, dr.

Industrial safety in the new laws. Siln doprava 11 no.5: 10-11 My '63.

DVORAK, Pavel, ins.

Determination of the depth and distances in a pipe drainage system.
Vodni hosp 13 no.6:229-235 '63.

1. Katedra hydromelioraci, Ceske vysoke uceni technicke,
Praha.

BENES, Konrad, prof. RNDr.; DVORAK, P.: KRAUSOVA, J.

Preliminary report on the preparation of the coal atlas of the Ostrava-Karvina coalfield. Sbor VSB Ostrava 10 no.1/2:249-251 '64.

1. Submitted December 28, 1963.

DVORAK, R.

"Basic Properties of Regulatory Valves." p. 268 (ENERGETIKA, Vol. 3, No. 8, August 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954, Unclassified.

SKREPEK,B.; DVORAK,R.

Determination of chorpromazine in the blood of the mother and newborn infant. Cesk. gynek. 28 no.9:636-638 N'63.

1.Gyn.-por. odd. nemocnice v Boskovicich (vedouci MUDr. M. Slonek) a OTS OUNZ v Hlansku (vedouci MUDr. R. Dvorak).

*

DVORAK, R.

Heterotransplantations of some rat tumours. Neoplasma (Bratisl.) 11 no.6:599-603 '64

1. 1st Institute of Pathological Anatomy, Medical Faculty, J.E. Purkyne University, Brno, Czechoslovakia.

DVORAK, R.; SVEJDA, J.; KUBALEK, V.

Heterotransplantation of BS rat tumour by means of diffusion chambers. Neoplasma (Bratisl.) 12 no.1:29-34 '65

1. 1st Institute of Pathological Anatomy, Medical Faculty Hospital, Brno, Czechoslovakia.

DVORAK, Rudolf, inz. CSc.

Seventh Yugoslav Congress of Rational and Applied Mechanics.
Stroj cas 15 no.6:573-574 '64.

DVORAK, Rajmund; SLAVIK, Jan

A case of spontaneous panniculitis of the Weber-Christian type. Vnitrni lek. 11 no.2:157-161 F '65

1. I. patologickoanatomicka katedra University J.E. Purkyne v Brne (prednosta: prof. MUDr. J. Svejda, Dr.Sc.) a Vnitrni odd. nemocnice v Boskovicich, Obvodniho ustavu narodniho zdravi Blansko (prednosta: MUDr. J. Spicka).

DVORAK, R.

SEL, B.; DVORAK, R.; STANEK, J.

New impedant plethysmograph. Lek. listy, Brno 9 no.1:1-3 1 Jan 1954. (CIML 25:5)

1. Of the Second Internal Clinic (Head--Prof. J. Polcak, M.D.) and of the Institute of Physiology (Head--Prof. V. Kruta, M.D.), Masaryk University, Brno.

DVORAK, Rostislav, MUDr.; PANEK, Frantisek, Ing.

New electronic phonendoscope Prema. Vnitr. lek., Brno 1 no.10: 776-779 Oct 55.

1. Z II. vnitrni kliniky MU, prednosta prof. MUDr. Jiri Polcak, z vyvojoveho strediska lekarskych pristroju n. p. Presna mechanika v Brne. Brno, 12, Charvatska 8. Brno, Schodova 1.
(STETHOSCOPE
phonendoscope, electronic, Prema.)

CZECHOSLOVAKIA/Human and Animal Physiology - Metabolism. T-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31437

Author : Sel Bohumil, Dvorak Rostislav, Harasek Eduard
Inst : -
Title : Saturation of an Organism With Vitamin C and Diuresis.

Orig Pub : Vnitrni lekarstvi, 1957, 3, No 8, 735-739.

Abstract : The administration to ill people of Tselaskon (I; tablet form of vitamin C) with a calculation of 100 mg 3 times a day was insufficient for the saturation of the organism (especially in the winter months). A daily dose of 1 g of I led to rapid saturation of C and a strong excretion of C with urine. In patients without edema, the saturation of C did not provoke an increase of diuresis. Data were cited on the content of l-ascorbic acid in I; under the action of air, the content of C in I is decreased.

Card 1/1

DVORAK, R.

PHASE I BOOK EXPLOITATION Z/6284

Jerie, Jan, ed., Engineer, Doctor, Corresponding Member of the Czechoslovak Academy of Sciences

Základní problémy ve stavbě spalovacích turbin (Basic Problems in the Construction of Gas Turbines [collection of articles]). Prague, Nakl. ČAV, 1962. 627 p. 1600 copies printed.

Sponsoring Agency: Československá akademie věd.

Ed. of Publishing House: Marie Moravcová; Tech. Ed.: František Konvický.

PURPOSE: The book is intended to familiarize turbine designers with recent developments in the design of gas turbines and to present some research results which may be helpful in designing more efficient turbines.

COVERAGE: The book comprises articles by leading Czechoslovak turbine experts on thermodynamic cycles, flow research in turbine components, burning of fuel in combustion chambers, axial compressors, and characteristics of turbines manufactured in Czechoslovakia.

9/10

Basic Problems in the Construction (Cont.) Z/6284

Card ~~1/8~~ 2/2

39798
Z/041/62/000/001/002/002
E160/E435

26.4110

AUTHOR: Dvořák, Rudolf, Candidate of Sciences, Engineer

TITLE: A contribution towards the theory of the induction type wind tunnel

PERIODICAL: Strojnícky časopis, no.1, 1962, 55-68

TEXT: Design calculations of this type of tunnel are difficult due to a lack of basic experimental and theoretical data. The article deals with merely one specific property of the induction type wind tunnel: limitations with regard to the maximum achievable flow velocity in the subsonic test section, caused by aerodynamic choking in the mixing section. The type of tunnel considered here is that where the ejector is in the shape of an annulus around the exit part of the test section. The author first derives a general expression for the flow Mach number in the test section for the case of choking in the mixing section. He then investigates the influence of the induction stream velocity. In practice, sonic velocity is not attainable in the test section on a conventionally designed induction wind tunnel. Some structural changes are required to avoid choking in the mixing part.

Card 1/2

Z/041/62/000/001/002/002
E160/E435

A contribution towards ...

The problem of raising the maximum flow velocity in the test section can also be approached by reducing the induction flow area, followed by an increase in the inducing fluid pressure to maintain the required flow. Danger of choking is greater at low induction pressures than at higher ones. However, the minimum induction flow area is governed by other considerations: limited inducing flow pressure and the capability of the inducing stream to suck the required flow through the test section. The influence of structural changes on the maximum attainable flow velocity in the test section yield the following conclusions: thicker edges at the exit end of the induction annulus and locating the exit end in the diffuser help to raise the maximum Mach number in the test section. Both these structural modifications make it feasible, under certain conditions, to achieve the sonic velocity. There are 5 figures.

SUBMITTED: June 1, 1961

Card 2/2

36743
Z/041/62/000/002/001/001
E197/E435

10,1300

AUTHOR: Dvořák, Rudolf, Engineer, Candidate of Sciences

TITLE: The influence of free stream periodic pulsations and turbulence on the flow in the turbulent boundary layer

PERIODICAL: Strojnícky časopis, no.2, 1962, 101-122

TEXT: The author investigates the effect of periodic pulsations and of turbulence in the free stream on the turbulent boundary layer, both by mathematical analysis and experiment. Proceeding from the Navier-Stokes and from continuity equations, the author formulates the effect of two velocity components: of longitudinal pulsations of constant frequency and of turbulent fluctuations of a statistical character; the two superimposed on each other give the quantities which represent their interaction. His first conclusion is that the influence of aperiodic fluctuations is small in the presence of periodic fluctuations of high frequency. The equations were then modified by using the so-called Prandtl assumptions on the estimation of the order of magnitude of the individual quantities, and commences to discuss the significance on flow in the turbulent boundary layer of each quantity in the

Card 1/ 4

differential equations. There are six such quantities and the author discusses their effect on the three strata from which the boundary layer is made up. From a qualitative argument he concludes that the effect of pulsations should be investigated by measurements in each of the three strata. The author proceeds with the integration of the equation for the flat plate in a similar manner to that carried out previously by Kármán for laminar layers, and by Gruschwitz for the turbulent layer and finds the form of three groups of members which represent (a) turbulency, (b) pulsation and (c) the interaction of turbulency and pulsation. For the purpose of integration, the author assumes an empirical dependence of the phenomena on Reynolds number. The available experimental results are discussed next, quoting the author's work and that of S.K.F.Karlsson "An unsteady turbulent boundary layer". Journal of Fluid Mechanics, v.5, pt.4, May 1959, and S.J.Kline, A.V.Lisin, Waitman "Preliminary experimental investigation of effect of free-stream turbulence on turbulent boundary layer growth. NASA T. N., D - 368, March 1960. The author used an otherwise

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R000411630001-5"

The influence of free stream ...

not specified crystal transducer for the investigation on longitudinal turbulent fluctuations and includes in his article oscillograms obtained when the element was taken in seventeen steps to a distance of 5 mm from the wall, passing from comparatively mild disturbances near the wall, through a layer of strong turbulency to a region of uniform and regular pulsations to the free stream. One of the purposes of investigation was to find out whether superposition will be simply additive or whether nonlinear interaction exists, and the author doubts Karlsson's conclusion of linearity of interaction and presumes that under Karlsson's conditions of test (up to 48 cycles/sec) nonlinearity remained undetected, while under his own conditions (over 200 c/s) nonlinearity became apparent, in particular in the intermediate more turbulent portion of the boundary layer. The majority of the authors own measurements shows that surface friction increases only mildly with increase in frequency, the effect of increased amplitude is much stronger. In one instance, the only quoted, at a frequency of about 130 c/s, an increase in pulsation amplitude of 23 to 32% of free flow caused the surface friction

Card 3/4

The influence of free stream ...

to increase by almost 12%. In conclusion, the author states that the results are identical with his previous experiments and that on the whole the presence of turbulent fluctuations of the free flow have the greatest influence and expects that pulsations will have a greater influence when their magnitude will be of the same order as the disturbances in the intermediate layer. There are 2 figures.

ASSOCIATION: Ústav pro výzkum strojů ČSAV, Praha
(Institute for Machine Research CSAV, Prague)

SUBMITTED: July 28, 1961

Card 4/4

BR

Z/030/62/000/003/001/001
E197/E135

AUTHOR: Dvořák, R., Engineer, Candidate of Sciences

TITLE: Measurement of flow velocity under conditions of large velocity gradients across streamlines

PERIODICAL: Jemná mechanika a optika, no.3, 1962, 67-72

TEXT: The purpose of the article is to consider errors in the measurement of flow velocity in boundary layers by way of surveying existing literature. The author considers the case where the dimensions of the sensor and of the boundary layer are of the same order of magnitude, and proceeds to describe miniature Pitot tubes and Prandtl tubes, such as those made from tubes manufactured by Presná mechanika, St. Turá (min. O.D. 0.4 mm, bore 0.25 mm) but mentions that glass tubes down to 0.025 are known to have been used and refers to the manufacture of small bore tubing by plating nylon thread and removing the thread afterwards. The author states that the presence of the Pitot tube causes two errors: the actual centre of flow, representing the location of the measured value, is different from the geometric

Card 1/3

centre of the tube; and secondly the measured pressure is not necessarily the same as that of the undisturbed flow. Attention has been so far mostly paid to the first effect and the author proceeds to analyse the formulae given in literature for the shift of the centre of pressure. He quotes the details given by A.D. Young and J.N. Maas, F.A. MacMillan, J.L. Livesey, G.B. Marson and G.M. Lilley, M.J. Lighthill and I.M. Hall for velocities in the sonic region covering the period 1937 to 1957, and of R.J. Monaghan, G.B. Marson and G.M. Lilley, J.L. Livesey, B. Thwaites, J. Lukasiewicz and J.K. Royle for velocities in the supersonic region covering the period 1952 to 1960. He refers to the "Barker effect" and considers the corrections applicable for various geometry of the entry of the tube dependent on Reynolds number and turbulence. The author continues by describing the application of anemometers, normally made from a few millimetre long tungsten wire of 0.01-0.1 mm diameter, quoting the work of E.G. Richardson, as well as the interferometric and X-ray methods, and quotes for the latter the work of G.J. Nothwang

DVORAK, Rudolf, inz., C.Sc.

International symposium on transonic flow. Stroj cas 14 no.1:84-85 '63.

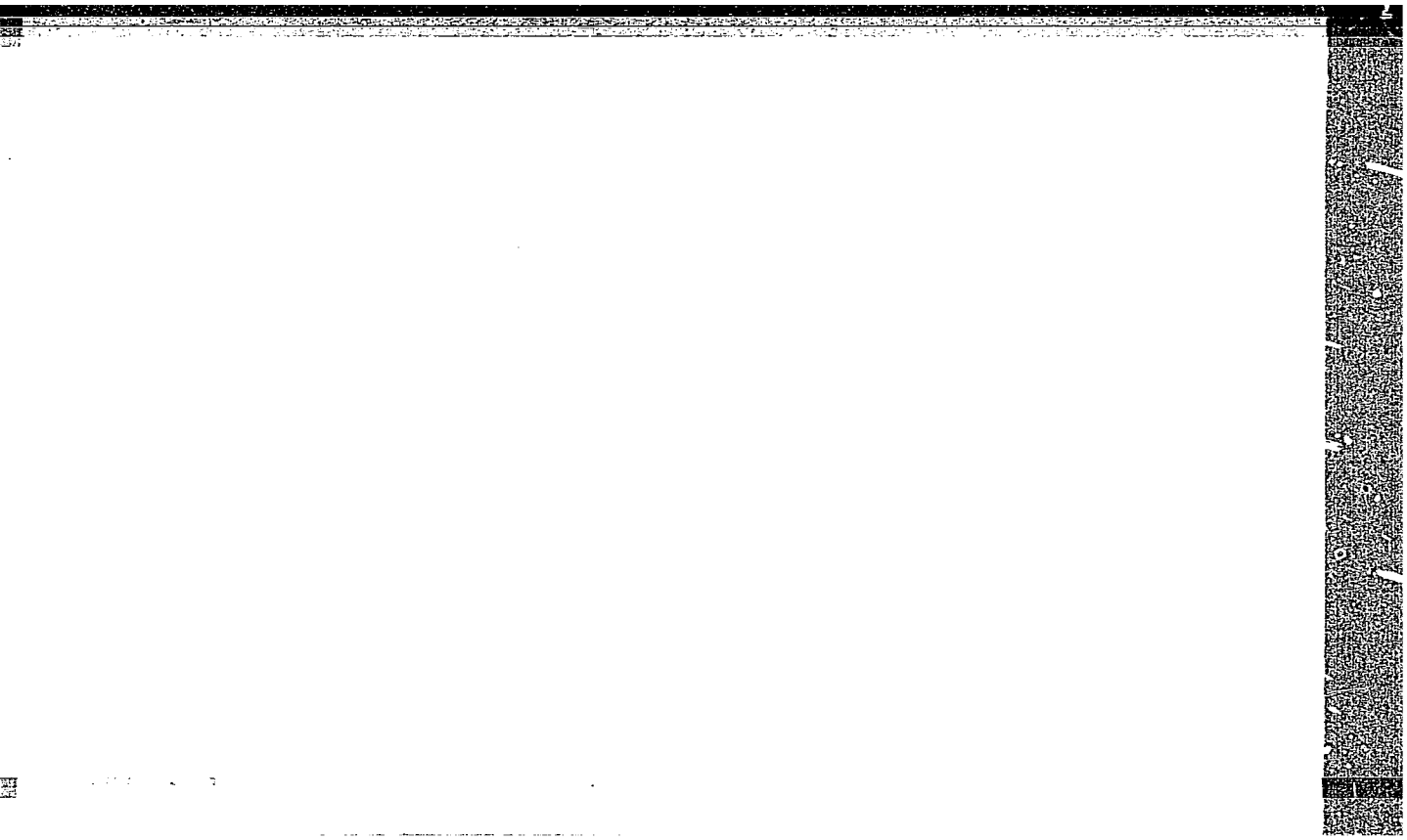
DVORAK, Rudolf, inz. CSc.

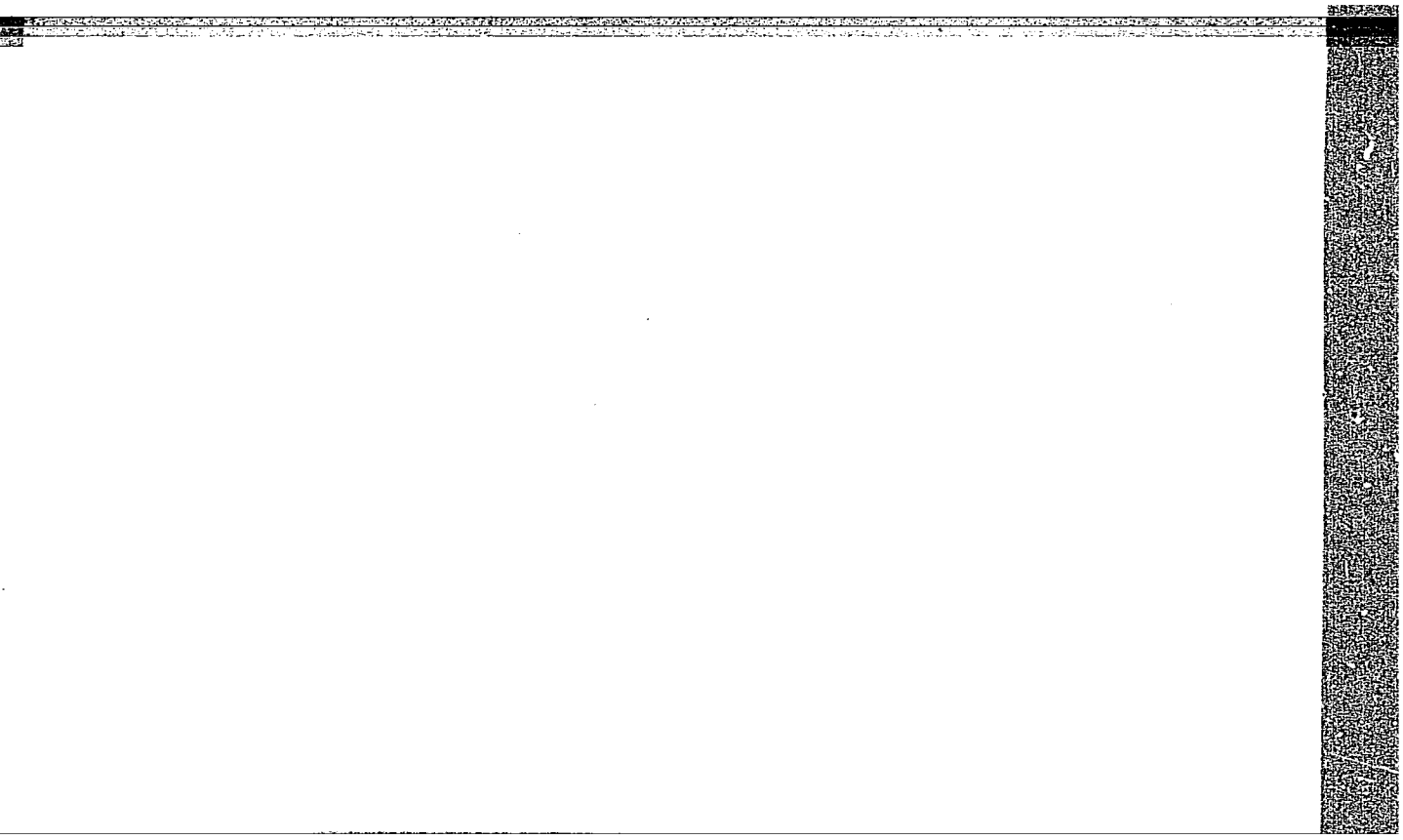
Effect of small defects on the movement of the laminar limit layer separation point in the lower transonic area. Stroj cas 15 no.5:485-487 '64

DVORAK, R.

On the unsteday boundary layer-shock wave interaction in the lower transonic region. Archiw mech 16 no.2:211-222 '64.

1. Czechoslovak Academy of Sciences, Institute of Mechanical Engineering, Prague.





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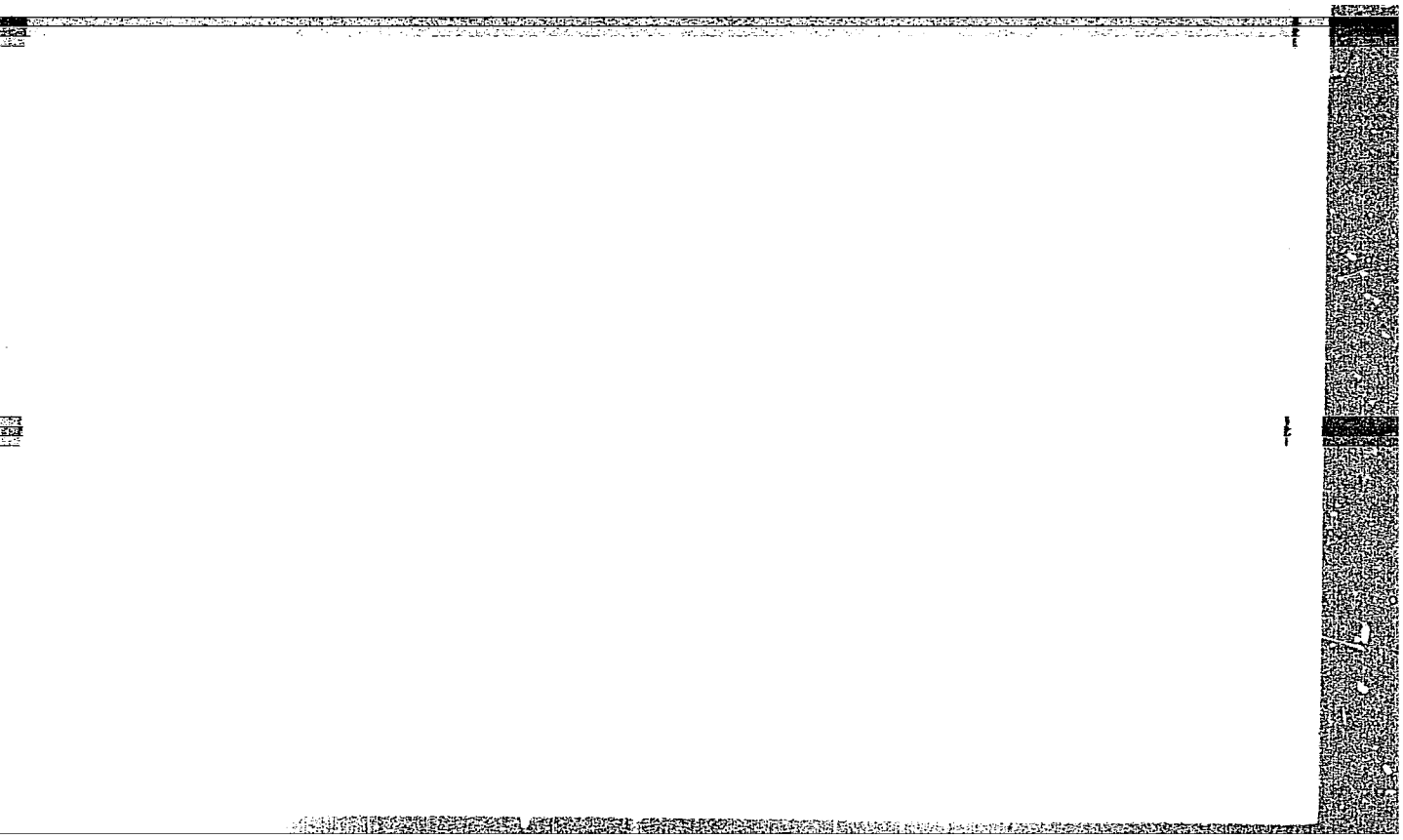

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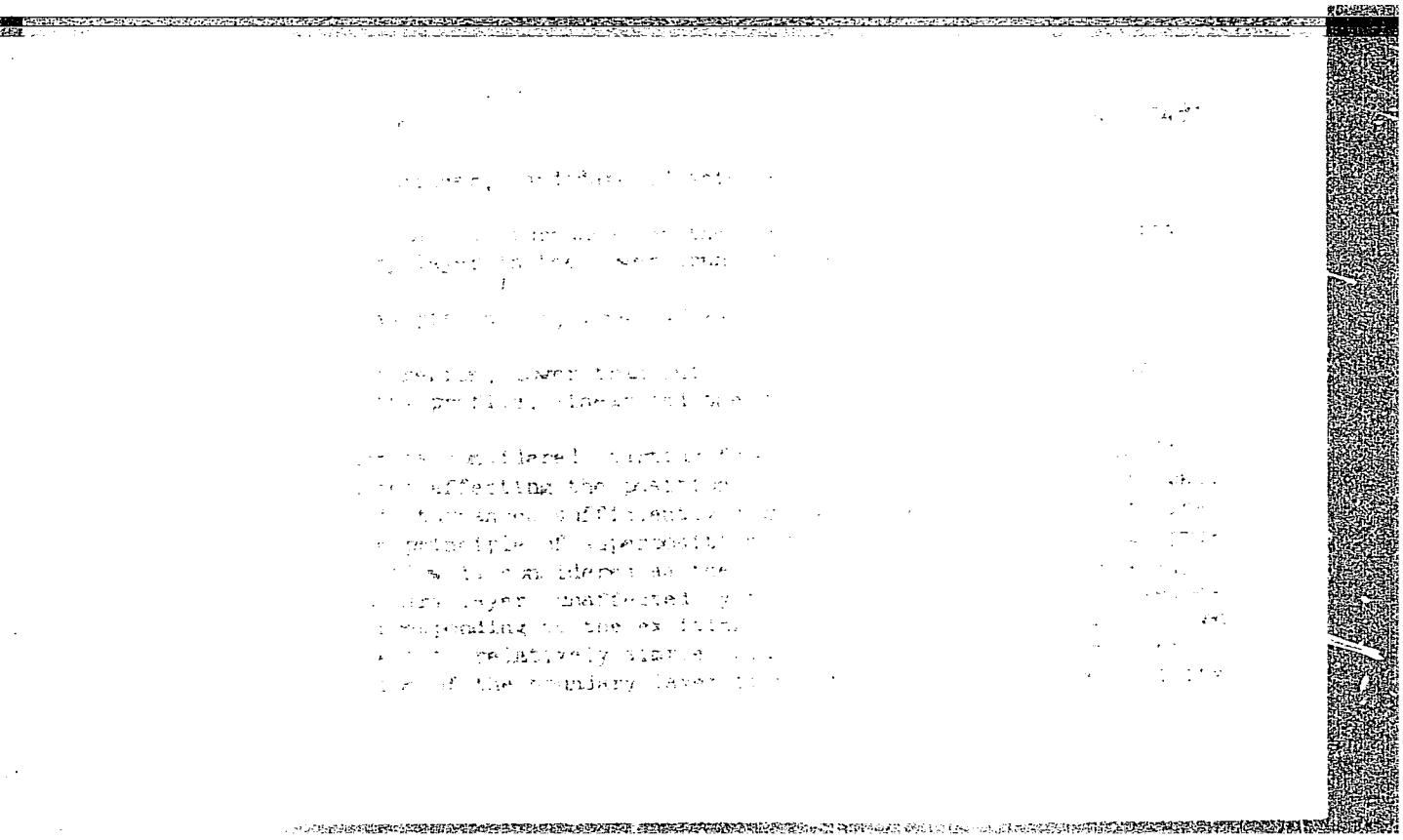

... derived ...
... disturbance ...
... the lower ... is
... of oscillation of the ... propor-
... of the exciting disturbance ... equal to
... magnitude of the pressure ... ed
... which characterizes ... disturbance
... viscosity. Orig. art. has: ...

ENCL: 00

OTHER: 001

DVORAK, Rajmund; RUZICKA, Pavel

The use of the Hufs membrane ultrafilters in following ascitic tumours. Scr. med. fac. med. Brunensis 38 no.4:137-141 '65.

1. I. Patologicko-anatomicky ustav lekarske fakulty University J.E. Purkyne v Brne (prednosta prof. MUDr. DrSc. Jaroslav Svejda).

DVORAK, Rudolf, Inz. CSc.

Dynamics of gases at high velocities and high temperatures. Stroj cas 16 no.2:158-159 '65.

Dynamics of gases at high temperatures. Ibid.:179-189

Shock wave behavior during its interaction with a boundary layer in the transonic flow and shock tube flow. Ibid.:225-229

1. Institute of Thermomechanics of the Czechoslovak Academy of Sciences, Prague. Submitted October 5, 1964.

DVORAK, Rudolf, inz. CSc.; KREJCI, Ludek, inz. CSc.

Experimental methods of the study of heat transmission at high temperatures. Stroj cas 16 no.2:198-205 '65.

1. Institute of Thermomechanics of the Czechoslovak Academy of Sciences, Prague. Submitted October 5, 1964.

L 00197-66 EWT(1)/EWP(m)/EPF(c)/EWP(j)/FCS(k)/ETC(m)/EWA(1) RPL WW/JW/RM
ACCESSION NR: AP5013185 CZ/0041/65/000/002/0179/0189

AUTHOR: Dvorak, Rudolf (Dvorzhak, R.) (Engineer, Candidate of sciences)

TITLE: Dynamics of high-temperature gases

SOURCE: Strojnicky casopis, no. 2, 1965, 179-189

TOPIC TAGS: gas dynamics, high temperature phenomenon

ABSTRACT: The article points out some fundamental differences between classical and high-temperature gas dynamics and discusses the problems of gas dynamics in connection with equilibrium and nonequilibrium chemical reactions. It is shown that a gas at high temperatures possesses the properties of a reacting mixture and of the so-called real gas, in which radiation also must be taken into account. All the properties and effects of a real and a high-temperature gas are considered only from the standpoint of new methods of energy conversion, particularly in the context of a high-enthalpy subsonic flow. Some specific examples are illustrated. Orig. art. has: 4 figures and 26 formulas.

Card 1/2

L 00197-66

ACCESSION NR: AP5013185

ASSOCIATION: Ustav termomechaniky CSAV, Prague (Institute of Thermomechanics, CSAV)

SUBMITTED: 05 October 64 ENCL: 00 SUB CODE: ME, TD

NO REF SOV: 005 OTHER: 005

Card 2/2

L 00107-66 EWT(1)/EPF(c)/ETC/EPF(n)-2/EWG(m) WW
ACCESSION NR: AP5013187 CZ/0041/65/000/002/0198/0205

AUTHOR: Dvorak, Rudolf (Dvorzhak, R.) (Engineer, Candidate of sciences); Krejci, Ludek (Kreychi, L.)(Engineer, Candidate of sciences)

TITLE: Experimental methods in the study of heat transfer at high temperatures

SOURCE: Strojnicky casopis, no. 2, 1965, 198-205

TOPIC TAGS: aerodynamic heat transfer, gas flow, subsonic flow

ABSTRACT: A discussion of heat transfer from a dissociated subsonic gas to a wall is given. The requirements, such as the test section and instruments, which the heat source and the experimental assembly itself must meet are described. The most advantageous heat source is a plasmatron; the flow of gas emerging from the plasmatron is free of pulsations, and contamination of this flow with metal vapors from the electrodes is acceptable. In a high-temperature assembly including a plasmatron, the duration of the experiment is limited primarily by the service life of the sensing elements of the measuring instruments. The parameters of the flow can be determined by contactless methods; only the calorimetric probes which measure the enthalpy of the stream and the heat flow to the wall are subjected to the direct action of the flow. An analysis of the temperature distribution

Card 1/2

L 00107-66
ACCESSION NR: AP5013187

with time in the calorimetric probe is presented which permits a correct selection of the probe material for any given experiment. Orig. art. has: 6 figures.

ASSOCIATION: Ustav termomechaniky CSAV, Prague (Institute of Thermomechanics, CSAV)

SUBMITTED: 05Oct64 ENCL: 00 SUB CODE: TD, ME

NO REF SOV: 001 OTHER: 003

Card 2/2

L 00108-66 EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(h)/EWA(c) WW
ACCESSION NR: AP5013191 CZ/0041/65/000/002/0225/0229

AUTHOR: Dvorak, Rudolf (Dvorzhak, R.) (Engineer, Candidate of sciences)

TITLE: Behavior of a shock wave during its interaction with a boundary layer in transonic flows and shock tubes

SOURCE: Strojnicky casopis, no. 2, 1965, 225-229

TOPIC TAGS: boundary layer flow, transonic flow, shock tube, weak shock wave

ABSTRACT: The thickness of a shock wave varies in direct proportion to its intensity and depends strongly on the density, molecular structure, thermal conductivity, and viscosity of the fluid. It is shown that by considering the thickness of a shock wave $\delta \sim Re^{-n}$ (where $n \to 0$ in the case of weak waves), in a calculation of the interaction of a weak wave with the boundary layer use may be made of the usual equations and methods of Prandtl's theory for the boundary layer. It is also shown that by considering the viscosity, certain problems (such as the interaction of a weak wave with a sonic line) can be solved in which physically impracticable characteristics and modifications would otherwise arise. Orig. art. has: 11 formulas.

Card 1/2

L 00108-66

ACCESSION NR: AP5013191

3

ASSOCIATION: Ustav termomechaniky CSAV, Prague (Institute of Thermomechanics, CSAV)

44,55

SUBMITTED: 05Oct64 ENCL: 00 SUB CODE: ME

NO REF SOV: 000 OTHER: 004

JW

Card 2/2

DVORAK, Rudolf

Pulmonary emphysema and peptic ulcer. Vnitrni lek. 11 no.7: 651-654 Jl '65.

1. Sanatorium Palace, Luhacovice (prednosta MUDr. Ivo Pavlik, CSc.).

DVORAK, R.; SVEJDA, J.

Brno mouse carcinoma. Neoplasma (Bratisl.) 12 no.4:391-398 '65.

1. 1st Institute of Pathological Anatomy, Medical Faculty, J.E. Purkyne University, Brno, Czechoslovakia. Submitted November 13, 1964.

Z/009/60/000/01/007/038
E112/E253

AUTHORS: Ambrož, J., Ambrož, L., Dvořák, S [redacted]

TITLE: Preparation of Pure Titanium Trichloride

PERIODICAL: Chemický průmysl, 1960, Nr 1, p 23

ABSTRACT: Titanium trichloride is recommended as a catalyst for stereo-specific polymerisations. The standard method for the preparation of the compound is the reduction of titanium tetrachloride in a stream of hydrogen at 1000°C. The authors state that the realisation of the reaction may give rise to experimental difficulties and that the separation of unreacted titanium tetrachloride from titanium trichloride may be difficult. They describe a laboratory method based on the same reaction and claim to have obtained microcrystalline titanium trichloride of high purity. Two diagrams of the apparatus are given. Experimental details are given for a charge of 350 ccs titanium tetrachloride as starting material. The titanium trichloride was shown to be completely free of the tetrachloride. There are 2 figures and 3 references, 1 of which is German and 2 English.

ASSOCIATION: Výzkumný ústav makromolekulární chemie, Brno
(Research Institute of Macromolecular Chemistry, Brno)

DVORAK, S.

Statistical division in the theory of polymers. Coll Cz Chem 28 no.1:251-254 Ja '63.

1. Institut der theoretischen Physik, Purkyne-Universitat, Brno.

DVORAK, Stanislav, inz.

Skew cable pull permitted for automatic cranes as an exception by the Technical Control Institute. Inz stavby 11 no.3: Suppl: Mechanizace no.3:37-39 '63.

1. Ustav technickeho dozoru, Praha.

BRAVENY, P.; DVORAK, S.

Electronic model of the rhythmic cardiac contraction regulation. Cesk. fysiol. 14 no.3:233-234 My'65.

1. Katedra fysiologie lekarske fakulty university J.E.Purkyne, Brno; VTAAZ, Brno.

DVORAK, TEPLY

"Microbiology of the dairying and fat industries" by [doc., inz. dr.] Jiri Dolezalek. Reviewed by Dvorak and Teply. Prum potravin 14 no.6:333-334 Je '63.

DVORÁK, Tomas

Rozhlasove a sdolovaci prijimace. (Radio and Communication Receivers. 1st ed. illus., index) Prague, NV, 1957. 335 p. Vol. 24 of Kniznice radiotechniky (Series on Radio Engineering).

A book, which is intended to be a link between the basic knowledge of radio engineering and the studies at a higher professional level, deals mostly with the theory without a special regard to its application. It requires certain basic knowledge in the field of radio engineering, mathematics, and physics. The subject matter is divided into six parts. Three are devoted to the design of the receivers. The introduction contains information on the present conditions of the receiver technology; it is followed by the description of the technical details in the design of the receivers and their accessories with regard to their application. Other parts are devoted to the tuning and measuring of receivers and their parts.

Bibliograficky katalog, CSR, Ceske knihy, No. 34. 1 Oct 57. p. 742.

DVORAK, T.

DVORAK, T.

Research into the territorial coverage of a television transmitter.

p. 258 (Sdelovaci Technika) Vol. 5, no. 9, Sept. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

CZECHOSLOVAKIA

DVORAK, V.; ZAMRAZIL, V.; Internal Department, Okresni Institute of Public Health (Interni Oddeleni OUNZ), Pisek, Chief (Prednosta) Dr A. SUSS.

"Neurological Complications in Dissecting Aneurism of the Aorta."

Prague, Ceskoslovenska Neurologie, Vol 30, No 1, Jan 67, pp 14 - 18

Abstract [Authors' English summary modified]: Three cases of dissecting aneurism are described; in all neurological complications were observed, and clinical findings were confirmed at autopsy. In one of the cases histological changes in the spinal cord were found. The cause was an ischemic lesion of the nervous tissue resulting from compression of the arteries originating in the aorta in the region of the aneurism. Description of the 3 main clinical types of nervous disturbances in dissecting aneurism of the aorta is presented. 1 Figure, 14 Western, 4 Czech, 1 USSR reference. (Manuscript received 13 Sep 65).

1/1

CZECHOSLOVAKIA

VYSKOCIL, J., Docent MD; DVORAK, V; POLAK, B..

Clinic of Occupational Diseases (Klinika nemoci z pr povolani FN), Brno (for all)

Brno, Vnitrni lekarstvi, No 9, 1963, pp 901-903

"Acute Hydrogen Selenate Poisoning."

UDC 616.132-007.649

CZECHOSLOVAKIA

DVORAK, V.; ZAMRAZIL, V.; Internal Department, Okresni Institute of National Health (Interni Oddeleni OUNZ), Pisek, Head (Vedouci) Dr A. SUSS.

" Dissecting Aortic Aneurysm."

Prague, Casopis Lekaru Ceskych, Vol 105, No 24-25, 17 Jun 66, pp 660 - 667

Abstract [Authors' English summary modified]: 20 cases were verified by a post mortem examination; the resulting clinical analysis of dissecting aortic aneurysm is presented. Occurrence, pathogenesis, and the most frequent symptoms are described. Hypertension was found in 80%, cardiovascular system impairment in 100%, respiratory troubles in 30%, abdominal symptoms in 20%, neurological symptoms in 20%, and signs of arterial occlusion of the extremities in 15%. The most frequent clinical symptoms were pseudo-infarction and thoraco-mediastinal syndromes. The disease was chronic in 20% of the cases. X-ray examination and ECG in diagnosis are discussed. Suitable treatment methods are evaluated. 4 Figures, 3 Tables, 58 Western, 22 Czech, 7 Russian, 1 East German References. (Manuscript received Jun 65).

1/1

DVORAK, V.; VILIMEK, I.; ZAMRAZIL, V.

Some data on the clinical picture of fat embolism. Acta chir. orthop. traum. Cech. 31 no.3:258-263 Je '64.

1. Interni oddeleni (vedouci MUDr. A. Süss) a ortopedicke oddeleni (vedouci MUDr. J. Horak Obvodniho ustavu narodniho zdravi v Pisku.

DVORAK, Vaclav, inz.

Testing means for the tests of electric strength of objects with a great self-capacity. Elektrotechnik 19 no.9:260-262 S '64.

1. Elektromontazni zavody National Enterprise, Prague.

DVORAK, Vaclav, inz.

Age distribution of workers and the labor productivity in the coal industry. Uhli 6 no.1:18-20 Ja'64.

1. Ministerstvo paliv.

DVORAK, Vaclav, inz.

A frequency transformer made in V.I.Lenin Works, Plzen.
Elektrotechnik 17 no.1:6-7 Ja '62.

1. Zavody V.I.Lenina, Plzen.

L 06121-67
ACC NR: AP6017893 (A) SOURCE CODE: CZ/0078/65/000/012/0008/0008

44
B

INVENTOR: Dvorak, Vaclav (Engineer; Brno)

ORG: none

TITLE: [Circuit for the impulse excitation of power transistors.] CZ Pat. No. PV 5945-64, Class 21

SOURCE: Vynalezy, no. 12, 1965, 8

TOPIC TAGS: circuit design, circuit theory, power amplifier, power supply, transistor, transistorized circuit

ABSTRACT: A circuit for the impulse excitation of power transistors using one transistor for opening and another for closing is described. It has the distinguishing feature that to the base connection of the power transformer is connected a diode oriented in the direction of the forward current of the base of that transistor to which is connected in parallel the diode base-emitter of the opening transistor oriented in the opposite direction. Thus, it is connected by the emitter to the base of the power transistor and the base either to the lead-in of the opening transistor, or to a resistance to which are connected two oppositely oriented diodes. Of these, one is an ordinary diode, and the other a Zener diode. The ordinary diode is connected against the direction of the forward current of the base supplied by the opening transistor.

SUB CODE: 09/ SUBM DATE: 26Oct64

Card 1/1 FC

NOVOTNY,A.; DVORAK,V.; PADOVEC,J.; SCHREIBER,B.

Prevention of thromboembolism in gynecology. Cas.lek.cesk. 103 no.8:199-205 21 F'64

1. Porodnicko-gynekologicka klinika lekarske fakulty hygienicke KU v Praze (prednosta: doc.dr. J.Padovec) a II. interni klinika lekarske fakulty hygienicke KU v Praze (prednosta: prof.dr. J.Syllaba).

*

SCHREIBER, B.; DVORAK, V.; CHYBA,J.; NOVOTNY,A.

Thromboembolism. III. Pulmonary embolism as a cause of death. Vnitrni lek. 11 no.2:113-119 F '65

1. II. vnitrni klinika lekarske fakulty hygienicke Karlovy University v Praze (prednosta: prof. Dr. J. Syllaba); Porodnicko-gynekologicka klinika LFH Karlovy University v Praze (prednosta: doc. Dr. J. Padovec) a Ustav pro patologickou anatomii LFH Karlovy University v Praze (prednosta: doc. Dr. J. Stolz).

CZECHOSLOVAKIA
DVORAK, V.

SCHREIBER, B., DVORAK, V., and NOVOTNY, A., Second Clinic of Internal Medicine (II. interni klinika), Faculty of Medical Hygiene (Lekarska fakulta hygienicka), Prof. J. SYLLABA, MD, director, and Clinic of Obstetrics and Gynecology (Porodnicko-gynekologicka klinika), Faculty of Medical Hygiene, Charles University, Prague, Docent J. PADOVEC, MD, director, [individual affiliations cannot be determined]
"Point System in the Prevention of Thromboembolic Disease"

Prague, Casopis Lekaru Ceskych, Vol CII, No 35, 30 August 63, pp 951-955.

Abstract[Authors' English summary]: Investigated was the possibility of using a point system as a basis for the prevention of thromboembolism. A conclusion was reached that the problems of prophylaxis in thromboembolism cannot be resolved by a general prophylaxis. The point system was found inadequate because it cannot express the basis and dynamics in the development of the thromboembolic disease. The authors think that effective prophylactic measures should be sought in biochemistry and physics. Forty-seven references, including 7 Czech and 1 Hungarian.

1/1

SCHREIBER, B.; NOVOTNY, A.; DVORAK, V.; CHYBA, J.

Thromboembolic disease. II. Thromboembolic complications of myocardial infarct. Cas. lek. cesk. 102 no.5:125-130 1 F '63.

1. II. interni klinika fakulty hygienicke KU v Praze, prednosta prof. dr. J. Syllaba Porodnicko-gynekologicka klinika lekarske fakulty hygienicke KU v Praze, prednosta doc. dr. J. Padovec Ustav pro patologickou anatomii lekarske fakulty hygienicke KU v Praze, prednosta doc. dr. J. Stolz.

(MYOCARDIAL INFARCT) (THROMBOEMBOLISM)
(ANTICOAGULANTS)

CZECHOSLOVAKIA UDC 618.1-089:616.153.963

NOVOTNY, A.; DVORAK, V.; OPPLT, J.; Gynecological Clinic Medical Faculty of Hygiene, Charles University (Gynekologicko-porodnicka Klinika Lekarske Fakulty Hygienicke KU), Prague, Head (Prednosta) Prof Dr J. PADOVEC; Institute for Clinical Biochemistry (Ustav pro Klinickou Biochemii), FN [Abbreviation not explained], Prague 10, Head (Prednosta) Dr J. OPPLT.

"Dyslipoproteinaemia After Surgical Castration in Women."

Prague, Casopis Lekaru Ceskych, Vol 105, No 21, 27 May 66, pp 569 - 573

Abstract [Authors' English summary modified]: Changes in the electrophoretic fractions of plasma lipoproteins were investigated in 50 patients after 3 basic types of gynecological operations. In women from whom both ovaries were removed, after a short drop a rapid rise of the total lipoprotein blood level occurs; this is due mainly to a rise in grossly dispersed lipoprotein fractions. This type of dyslipoproteinaemia is important in the development of early postoperative complications, particularly thromboembolic ones, and for the development of atherosclerosis. Castration should be resorted to only where necessary and followed by hormonal substitutions. 1 Figure, 1 Table, 12 Western, 9 Czech references. (Ms. rec. Feb 66).

1/1

NOVOTNY, A.; SCHREIBER, B.; DVORAK,V.; CHYBA, J.; ENGLER, V.

Mortality due to pulmonary embolism in gynecology. Acta Univ. Carol. [med.] (Praha) 9 no.5:385-399 '63

DVORAK, Vaclav; SCHREIBER, Bedrich; NOVOTNY, Antonin; CHYBA, Jiri

Thromboembolic complications in malignant tumors. Acta Univ. Carol. [med.] (Praha) 9 no.5:403-414 '63

1. Porodnicko-gynekologicka klinika lekarske fakulty hygienicke University Karlovy v Praze (prednosta: doc. MUDr. J. Padovec); II. interni klinika lekarske fakulty hygienicke University Karlovy v Praze (prednosta: prof. MUDr.J.Syllaba), a Ustav pro patologickou anatomii lekarske fakulty hygienicke University Karlovy v Praze (prednosta : doc. MUDr. J.Stolz)

CZECHOSLOVAKIA

B. SCHREIBER, A. NOVOTNY, V. DVORAK and J. CHYSA; Second Internal Medicine Clinic (II. interni klinika), Head (prednosta) Prof Dr J. SYLLABA; Clinic for Obstetrics and Gynecology (Porodnicko-gynekologicka klinika), Head Docent Dr J. PADOVEC; and Department of Pathology (Ustav pro patologickou anatomii), Head Docent Dr J. STOLZ; of the Faculty of Medical Hygiene of Charles University (Lekarska fakulta hygienicka) KU [Karlove Universita] Prague.

"Thromboembolic Disease. Part 2. Thromboembolic Complications of Myocardial Infarction."

Prague, Casopis Lekaru Ceskych, Vol 102, No 5, 1 Feb 63; pp 125-130.

Abstract [English summary modified]: Analysis of 535 fatal myocardial infarcts 1954-1958 by sex, age, month of year; atherosclerosis; heart thrombi; pulmonary embolism; arterial venous thromboembolic complic'ns; myocardial rupture; anticoagulant treatment. Latter was not always administered in an optimal manner. Ten tables, 25 references: 4 Czech, 1 Hungarian, 1 Soviet, 19 Western.

1/1

SCHREIBER, B.; DVORAK, V.; NOVOTNY, A.

Use of a point system in the prevention of thromboambolic disease. Cas. lek. cesk. 102 no.35:951-955 30 Ag '63.

1. II interni klinika LFH KU v Praze, prednosta prof. dr. J. Syllaba Porodnicko-gynekologicka klinika LFH KU v Praze, prednosta doc. dr. J. Padovec.

(THROMBOEMBOLISM) (GYNECOLOGY)
(POSTOPERATIVE COMPLICATIONS)
(PULMONARY EMBOLISM)
(ANTICOAGULANTS)

NOVOTNY, A.; DVORAK, V.

Influence of age on thromboembolic disease in gynecology.
Cesk. gynek. 30 no.6:544-548 Ag '65.

1. Gyn.-por. klin. lek. fak. hyg. Karlovy University v Praze prednosta doc. dr. J. Padovec, DrSc.).

SLANINA, J.; DVORAK, V.

Antihistaminics in postirradiation syndrome. Cas. lek. cesk. 92 no. 40:1098-1100 2 Oct 1953. (CIML 25:4)

1. Of the Roentgenological Department (Head--J. Slanina, M.D.) and of State Radiotherapeutic Institute (Head--F. Vadura, M.D.), State District Hospital, Prague-Bulovka.

DVORAK, V. MUDr.

Dispensary care for patients with malignant tumors. Cesk. zdravot. 4 no.12:690-693 Dec 56.

1. Onkologicky ustav v Praze.
(NEOPLASMS, therapy,
dispensary care (Cz))

DVORAK, Vit.

DVORAK, Vit.

Control of malignant tumors. Cesk. zdravot. 6 no.1:28-31 1958.

1. Onkologicky ustav, Praha.
(NEOPLASMS, prev. & control
in Czech. (Cz))

DVORAK, Vit; RASIN, Frantisek

Radiotherapy of induratio penis plastica. Cesk.rentg. 13 no.6: 389-392 D '59.

1. Onkologicky ustav, Praha, red. MUDr. Fr. Vadura.
(PENIS dis.)
(RADIOTHERAPY)

RASIN, Frantisek, DVORAK, Vit.

Our experiences with radium-irradiation of Dupuytren's contracture.
Cesk.rentg. 13 no.6:393-396 D '59.

1. Onkologicky ustav, Praha, red. MUDr. Fr. Vadura.
(DUPUYTREN'S CONTRACTURE radiother.)
(RADIUM ther.)

DVORAK, Vit.

Precancerous conditions of the cervix uteri. Cooperation between oncological and gynecological services. Cesk. gyn. 24[38] no.7: 546-550 S '59.

1. Onkologicky ustav v Prace, reditel MUDr. Fr. Vadura.
(CERVIX UTERI, neopl.)

~~SOUCKOVA, Eva /reviewer/~~ DVORAK, V.

SURNAME, Given Names

(2)

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Prague, Prakticky Lekar, Vol 41, No 8, 1961, pp 377-388.

Data: "Radiation Therapy With an Introduction to Preventive Oncology (Lecba zarenim s uvodem do preventivni onkologie), Prague, State Medical Publishing House (Statni zdravotnicke nakladatelstvi), 1959, 280 pages, 58 Illus.

Authors: DVORAK, V.
HLASIVEC, Z.

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CZECHOSLOVAKIA

DVORAK, V., MD.

Oncological Institute (Onkologicky ustav), Prague

Prague, Prakticky lekar, No 19, 1963, pp 745-747

"A Singular Mechanical Trauma."

S/194/62/000/008/008/100
D201/D308

9.2150

AUTHOR: Dvořák, Vladimir

TITLE: A time-relay

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1962, abstract 8-2-38 f (Czech. pat., cl. 21 g, 4/05, no. 98181, Jan. 15, 1961)

TEXT: The patented time-relay circuit secures an output pulse of a given duration with a given delay, the control pulse being of a short duration. The time relay consists of a thyratron and three relays one of which is connected in the anode circuit of the thyratron. The delay time and the duration of the pulse are determined by an RC circuit connected in the control grid circuit. The resistors in this network are switched by one of the auxiliary relays. A transformer power supply is used, all relays are shunted by capacitors. [Abstracter's note: Complete translation.]

VP

Card 1/1

JANOVEC, V.; DVORAK, V.

Remarks on $BaTiO_3$ ion models. Chekhosl fiz zhurnal 13 no.12:905-909 '63.

1. Fyzikalni ustav, Ceskoslovenska akademie ved, Praha.

DVORAK, V.

DVORAK, V.: POKORA, L.: VISINGER, B

"Tables for the Design of Commutators With Multiple Parallel Windings." (Supplement) p. T35, (ELEKTROTECHNICKY OBZOR, Vol. 42, No. 6 June 1953, Praha, Czechoslovakia)

SO: Monthly List Of East European Accessions, LC, Vol. 3, No. 5 May 1954, Unclassified

Dvorak, V.

Problems in construction of large turboalternators. p. 326
ELEKTROTECHNICKY OBZOR. (Ministerstvo strojirenstvi a Ministerstvo paliv a energetiky) Praha. Vol. 45, no. 6, June 1956.

Source: EEAL LC Vo. 5, No. 10 Oct. 1956

DVORAK V.

DVORAK, V.

Electric dynamometers.

p. 216, (Elektrotechnik) Vol. 12, no. 7, July 1957, Praha, Czechoslovakia

SC: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, Jan. 1958

DVORAK, V.

The development and production of three-phase commutator motors. (Supplement) p. T47.

(Elektrotechnicky Obzor. Vol. 46, no. 7, July 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

DVORAK, V.

"New types of enameled wire for coils."

p. 109 (Sdelovaci Techika, Vol. 6, No. 3, March 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 9, September 1958.

DVORAK, V.

"Problems of manufacturing fine non-magnetic enameled wires. p. 103."

SDELOVACI TECHNIKA. Praha, Czechoslovakia. Vol. 7, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas.

DVORAK, V.

"Testing the continuity of enamel coating of insulated wires". P. 153.

SEDLOVACI TECHNIKA. (Ministerstvo strojirenstvi). Praha, Czechoslovakia, Vol. 7, No. 4, Apr. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

DVORAK, Vlad., doc., inz.

A conference on the use of steel of 51 kg. per square millimeter strength in the field of steel structures. Nova technika no.4:181 Ap '60.

DVORAK, Vladimir, inz.

Semiautomatic single-purpose machine tool T 48-III with circular table. Stroj vyr 10 no. 3:116. '62

1. Ceske zavody motocyklove, Strakonice.

DVORAK, Vladimir, doc., inz., C.Sc.

Design of a large stell bride in Luxembourg. Inz stavby 10 no.4:157-158. Ap '62.

DVORAK, Vladimir, doc., inz., C.Sc.

Steel railway bridges with direct track laying. Inz stavby 11 no.2: 65-68 F '63.

DVORAK, Vlad., inz.

A 2,6 km long bridge of prestressed concrete in Canada.
Inz stavby 12 no.1:44-46 Ja'64.

DVORAK, Vlad., inz.

Overhead city transportation. Inz stavby 12 no. 3:129-130 Mr '64.

DVORAK, Vlad., inz.

Bridge over the Gulf of Maracaibo in Venezuela. Inz stavby 12 no.6:278 Je '64.